

June 13, 2000

Mr. R. P. Powers
Senior Vice President
Nuclear Generation Group
American Electric Power Company
500 Circle Drive
Buchanan, MI 49107-1395

SUBJECT: CLOSURE OF NRC INSPECTION MANUAL CHAPTER 0350 RESTART
ACTION PLAN FOR RESTART OF THE DONALD C. COOK (D.C. COOK)
NUCLEAR PLANT - UNIT 2

Dear Mr. Powers:

This letter documents the completion of NRC actions necessary prior to restart of D.C. Cook - Unit 2 and the NRC review of specific corrective actions that your staff committed to complete prior to restarting Unit 2.

On September 9, 1997, American Electric Power shut down both units of D.C. Cook after plant staff declared the emergency core cooling systems inoperable based on findings of an NRC Architect Engineering Inspection. On September 19, 1997, NRC issued a Confirmatory Action Letter (CAL) describing your commitment to take corrective action on nine technical issues and perform an assessment to determine if the engineering deficiencies described in the CAL affected system operability of other safety-related systems. On March 7, 1998, you developed a Restart Plan which outlined the system readiness reviews, programmatic assessments, and functional area reviews that your plant staff would complete to address the CAL and other issues to ensure safe plant startup and operation. Your Restart Plan has since undergone several revisions and changes in scope and assigned responsibilities.

In April 1998, due to the identification of additional concerns regarding the ice condenser and fibrous material inside containment, and recognizing the necessary scope and depth of assessment and corrective actions, the NRC initiated focused and coordinated regulatory oversight of D.C. Cook. The NRC Region III and Office of Nuclear Reactor Regulation established an oversight panel in accordance with NRC Inspection Manual Chapter 0350, "Staff Guidelines for Restart Approval," for D.C. Cook to ensure appropriate focus was provided and resources were allocated with regard to reviewing D.C. Cook improvement initiatives. Concurrently, the NRC identified violations in the performance of test activities, the implementation of the corrective action program, the control of the facility design basis, and the conduct of safety evaluations which resulted in a Severity Level II enforcement action and a \$500,000 Civil Penalty. Of greatest concern were the failure to update and maintain the design and licensing bases of the plant when plant activities altered system or equipment design and the failure to implement a corrective action program that resulted in prompt identification and resolution of safety concerns. Performance errors were also identified regarding the conduct of 10 CFR 50.59 safety evaluations, calculations, and engineering analysis.

On July 30, 1998, the NRC issued a Case Specific Checklist for D.C. Cook, which was developed in accordance with NRC Inspection Manual Chapter 0350. The Case Specific Checklist defined actions and issues that needed to be considered by the NRC in determining whether D.C. Cook implemented effective corrective actions necessary for the plant to restart. The NRC Oversight Panel verified that the issues identified in the Case Specific Checklist were included in revisions to your Restart Plan. The Case Specific Checklist was last updated on September 17, 1999, in response to NRC assessments at the D.C. Cook plant.

The NRC staff has completed its inspection and assessment activities and has evaluated the effectiveness of your staff's actions to address the issues that resulted in the plant shutdown. We also evaluated your actions to resolve the issues described in the CAL, which we enclosed in a separate letter to you dated February 2, 2000. The NRC Oversight Panel's assessment of your corrective actions was based on resident and region-based inspector observations and a number of special inspection efforts, including:

- Design Control (Inspection Report 99023)
- Corrective Action Program (Inspection Report 99024)
- Ice Condenser (Inspection Report 99026)
- Engineering Corrective Action (Inspection Report 99029)
- Instrument Uncertainty (Inspection Report 99032)
- Surveillance Testing and Emergency Operating Procedures (Inspection Report 99033)
- Programmatic Readiness (Inspection Report 99034)
- Motor Operated Valves (Inspection Report 2000002)
- Restart Readiness Assessment (Inspection Report 2000003)
- Backlog Assessment (Inspection Report 2000004)
- Engineering Followup (Inspection Report 2000007)
- Emergency Operating Procedures Program (Inspection Report 2000010)

In addition, there have been frequent public meetings between your staff and the NRC Oversight Panel, and frequent internal meetings of the NRC Oversight Panel. The results of these meetings were documented in public meeting summaries and internal NRC Oversight Panel meeting minutes, all of which have been or will be placed in the NRC Public Electronic Reading Room.

The NRC Oversight Panel has concluded that your staff's performance improvement initiatives have been sufficiently effective to support restart of D.C. Cook Unit 2. After consultation with the Executive Director for Operations and the Director, Office of Nuclear Reactor Regulation, I have determined that we have no further concerns regarding restart of D.C. Cook Unit 2. Therefore, the Inspection Manual Chapter 0350 Case Specific Checklist for D.C. Cook Unit 2 is closed. The Restart Action Matrix, which documented the actions initiated by the NRC per the Inspection Manual Chapter 0350 process, is included as Enclosure 1.

As discussed with you in our March 10, 2000, public meeting, and documented in a letter dated April 20, 2000, implementation of the revised reactor oversight process and the revised assessment process has been delayed until following restart of Unit 2. Further, the Inspection Manual Chapter 0350 Oversight Panel will continue to provide oversight of D.C. Cook through restart of Unit 1 and until sufficient operating experience has accumulated such that augmented NRC oversight through an NRC Oversight Panel is no longer necessary and NRC oversight can occur under the routine inspection program.

While the specific Restart Action Matrix issues have been adequately resolved, you remain responsible for ensuring that any other issues which may impact plant restart and safe operation are promptly identified and properly addressed. In addition, continued focus must be applied to correcting the remaining deficiencies in Unit 2 structures, systems and components that were deferred until after restart. Region III will continue to monitor D.C. Cook Unit 2 startup activities through resident and region-based inspection activities, including a period of continuous observation during restart of the plant.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response if you choose to respond, will be placed in the NRC Public Electronic Reading Room (PERR) link at the NRC homepage, namely <http://www.nrc.gov/NRC/ADAMS/index.html>.

Sincerely,

/signed/

J. E. Dyer
Regional Administrator

Docket Nos. 50-315; 50-316
License Nos. DPR-58; DPR-74

Enclosure: Restart Action Matrix

cc w/encl: A. C. Bakken III, Site Vice President
J. Pollock, Plant Manager
M. Rencheck, Vice President, Nuclear Engineering
R. Whale, Michigan Public Service Commission
Michigan Department of Environmental Quality
Emergency Management Division
MI Department of State Police
D. Lochbaum, Union of Concerned Scientists

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